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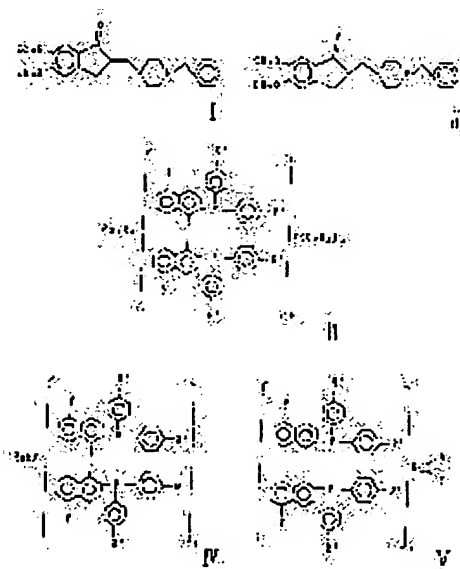
## (54) PRODUCTION OF (-)-1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANON)-2-YL] METHYLPIPERIDINE

(57)Abstract:

**PURPOSE:** To obtain a compound useful as a medicine in ultrahigh optical purity and high yield by asymmetrically hydrogenating a methylpiperidine derivative in the presence of a ruthenium-phosphine complex catalyst.

**CONSTITUTION:** (E)-1-Benzyl-4-[(5,6-dimethoxy-1-indanon)-2-ylidenenyl]methylpyridine expressed by formula I is hydrogenated in the presence of an optically active ruthenium-phosphine complex catalyst in a solvent such as methylene chloride at 25-75°C under 4-100kg/cm<sup>2</sup> pressure for 24-168hr by passing hydrogen therethrough to afford the objective substance, expressed by formula II, having inhibitory action on acetylcholinesterase and useful as a therapeutic agent for Alzheimer's diseases.

At least one or more of compounds expressed by formulas III, IV and V (X us halogen; Y is H,



amino, acetylamino, etc.; R1 is H or lower alkyl; A and Z are ClO<sub>4</sub>, BF<sub>4</sub>, etc.; n is 1 or 2) are used as the ruthenium- phosphine complex.

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## LEGAL STATUS

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